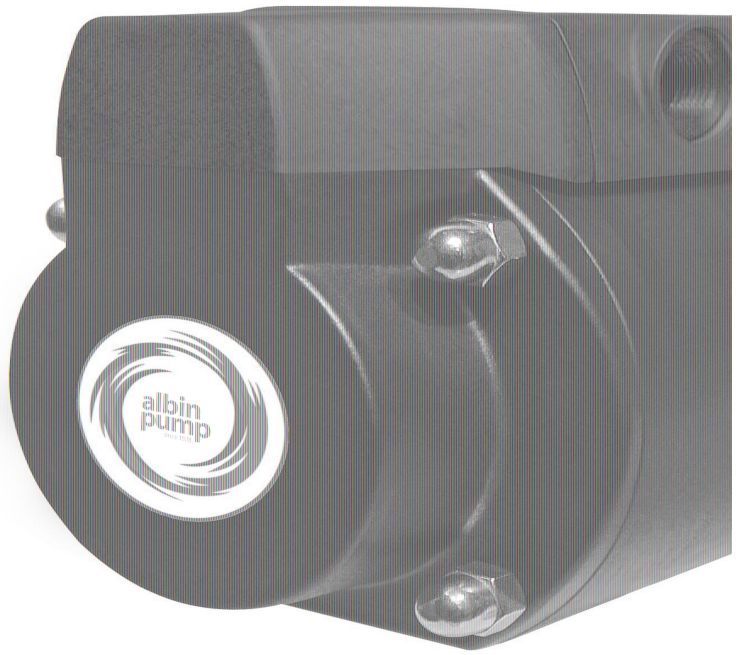
albin pump
since 1928



Business concept

Albin Pump AB develops, manufacture and market pump solutions for industries in order to create better products and production processes.

Albin Pump history

- Pump company – focused on one thing.
- Working with AODD (Air Operated Double Diaphragm) and hose pumps.
- Well financed and focusing on long term success.
- Founded by Mr. Lennart Wiklund (previous Johnson Pump Sweden owner) & Christian Soderholm
- Majority owner is the Albin Invest group
- 16 employees
- 4 million Euro turnover 2007

Albin Invest

albin pump

SGV Industrier AB

pressmaster

GÖTENE CONSTRUCTION

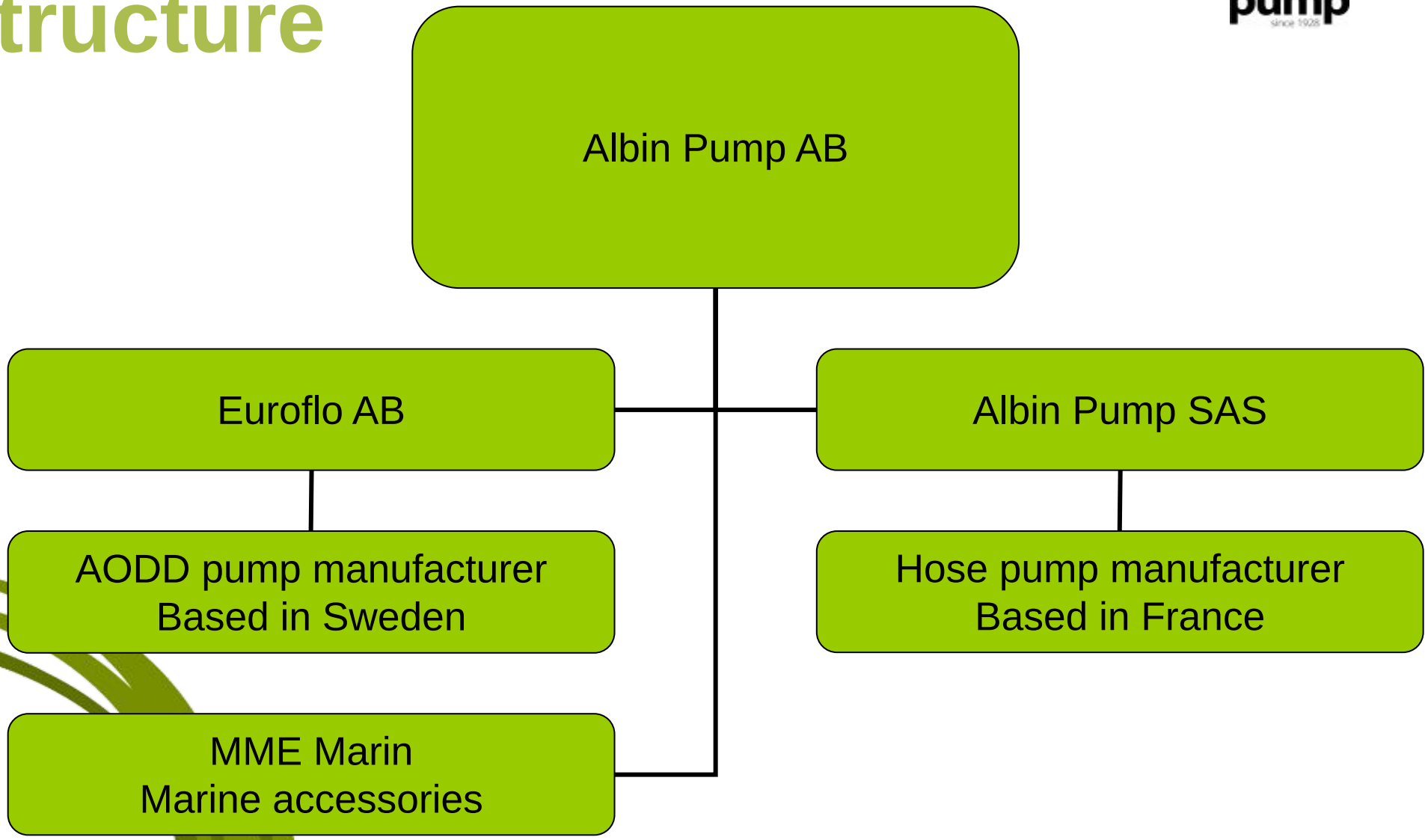
albin pump

phonera

WR CONTROLS

LIDAN

Albin Pump AB Structure



Albin Pump SAS history

ABAQUE Industries
Bredel reseller up to 1980
Created and manufacture Abaque hose pump range
1980-1999

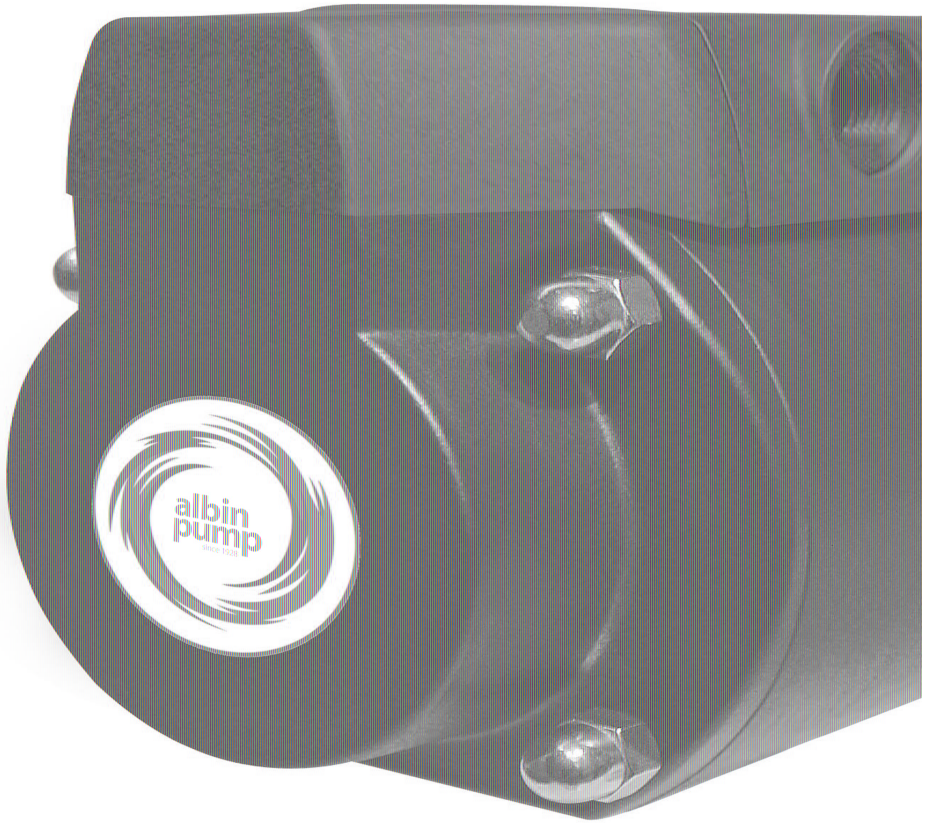
BLACKMER bought Abaque Industrie SA 09/1996
And 07/ 1999 start manufacturing – Abaque Range

MGI Industrie – ABAQUE range distributor
And other pump type
France
2000 - 2006

ALBIN AB bought MGI industrie
03/2006

ALBIN PUMP SAS start manufacturing ALH hose pump range
07/2006

Albin AODD Pump



The AD pump range

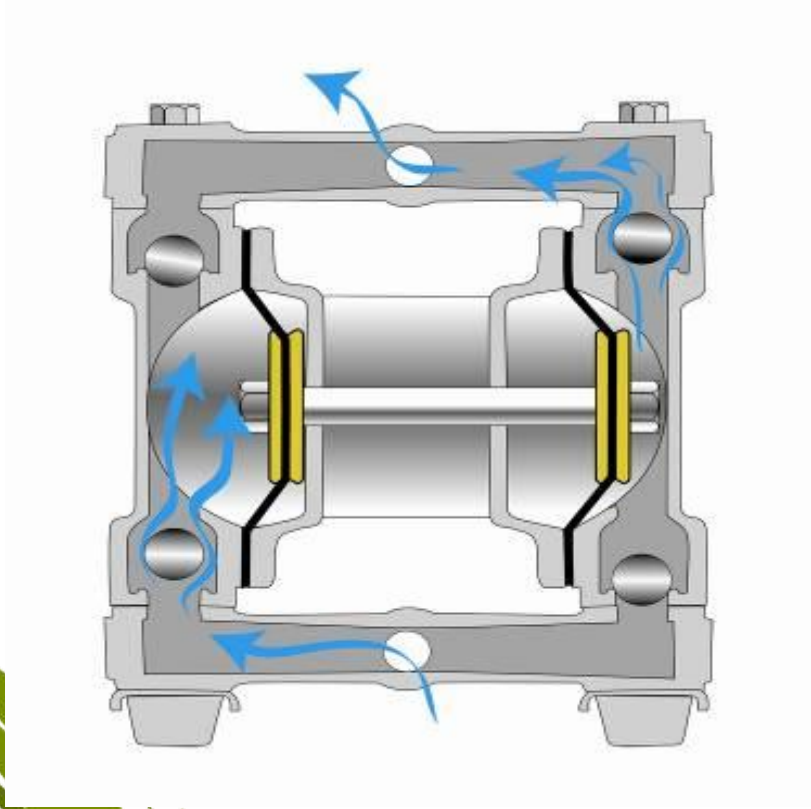
Problems with AODD pumps

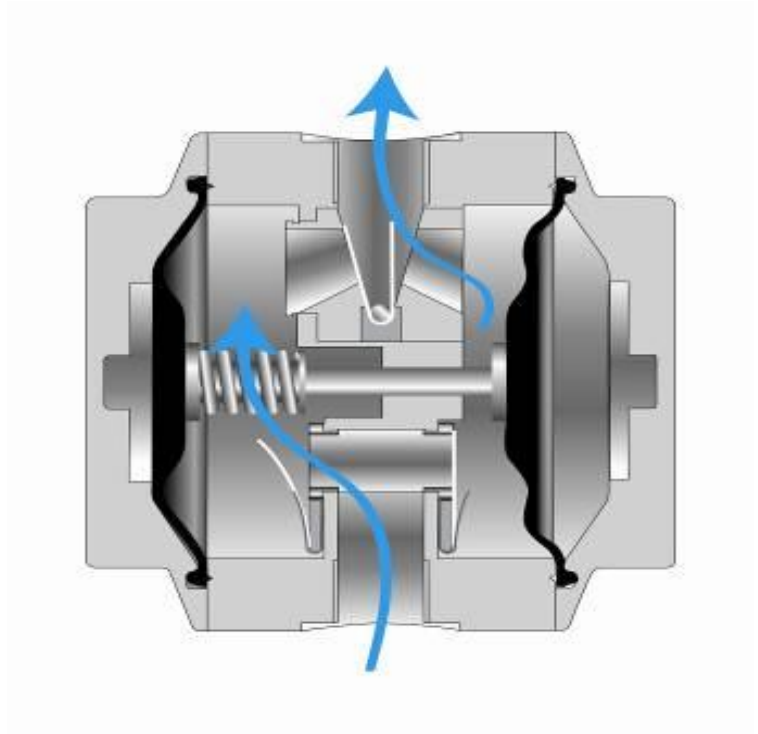
- Problems with AODD pumps are the high pulsation, maintenance, high energy consumption, noise, vibrations, inflexible etc.

- The Albin Pump AD thanks to the central flow, the more efficient air motor, new flap valve design and flexible diaphragm suspension addresses all these problems.

A New Concept

Conventional vs. Albin Pump AD

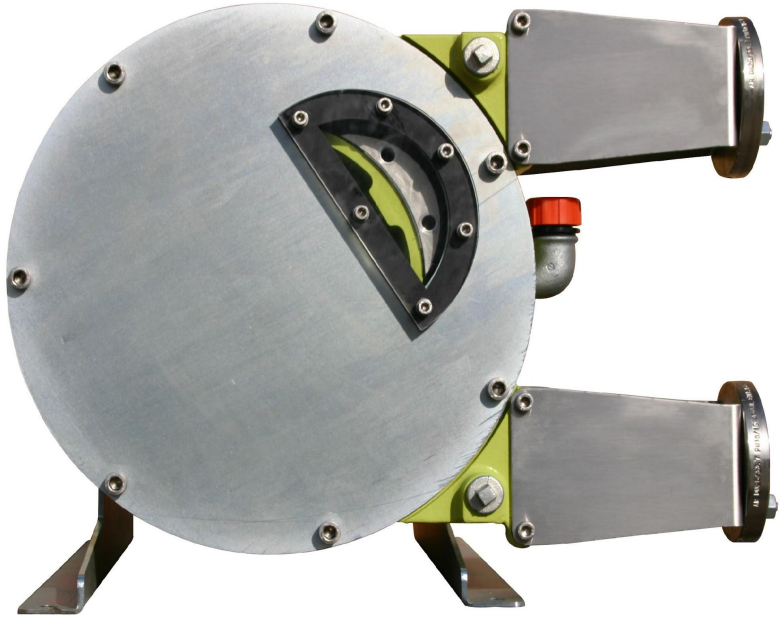


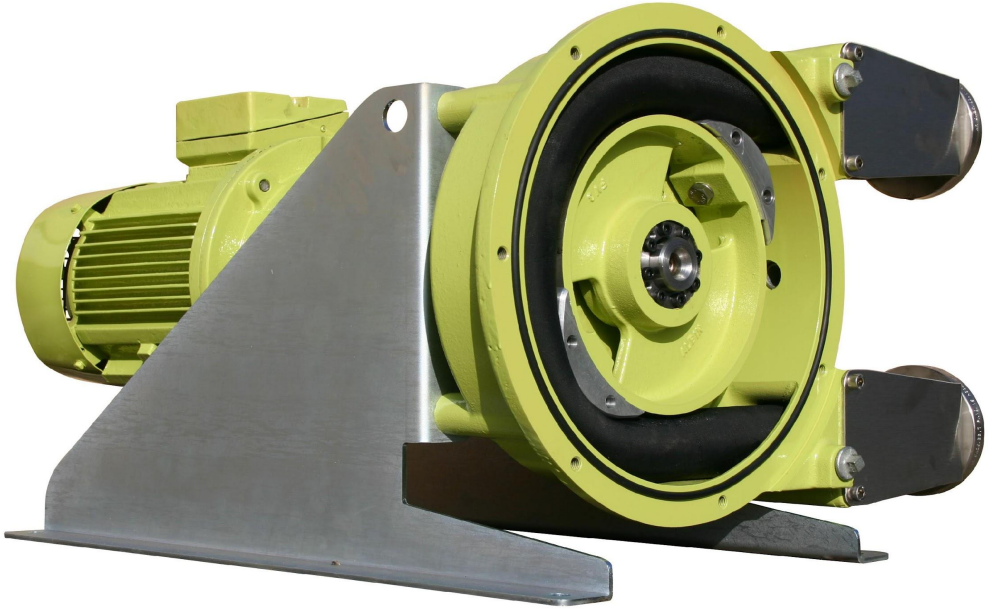


Albin Pump AD Advantages

- Revolutionising air valve design and central flow technique
- Less pulsation (-70%)
- Lower air consumption (-35%)
- Lower maintenance costs
- Longer diaphragm lifetime (3-5 times)
- Compact design and low weight
- Total flexibility in installation - easy to integrate
- Easy service – less downtime - lower lifecycle cost
- More cost effective solutions for both OEM manufacturers and end user
- Higher performance

Albin hose pump





The ALH pump range

Do you have one of this problems?

- Mechanical seal leaking (PC / Centrifugal)
- High maintenance cost due to abrasion or dry running (PC)
- Reduce performance due to high manometric lift or high viscosity (AOD / PC)
- Difficulties in having high outlet pressure (AOD)
- Short life time of pump while pumping high or low PH liquids ? (PC / Centrifugal)
- Low dosing accuracy due to wear (PC)
- Heavy maintenance on hose pump with integrated bearing box or wheel pressed on the shaft (Bredel)
- Short hose life (all other hose pump manufacturer)

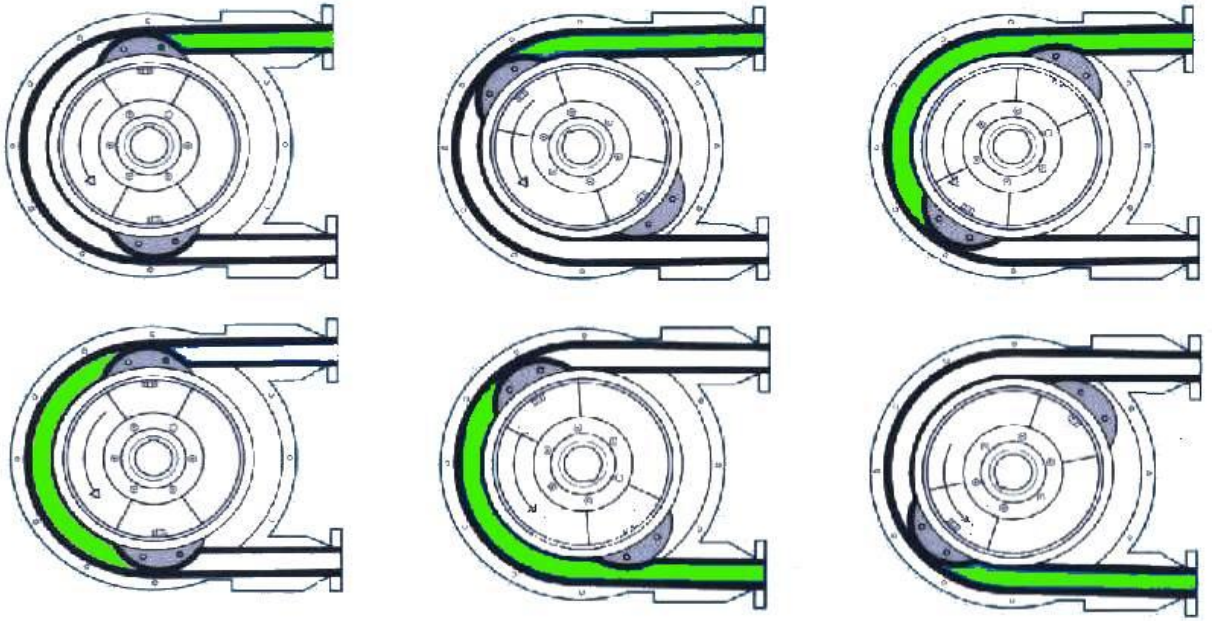
Our solution

ALBIN PUMP has developed a complete pump range to solve your problems:

The ALH hose pump

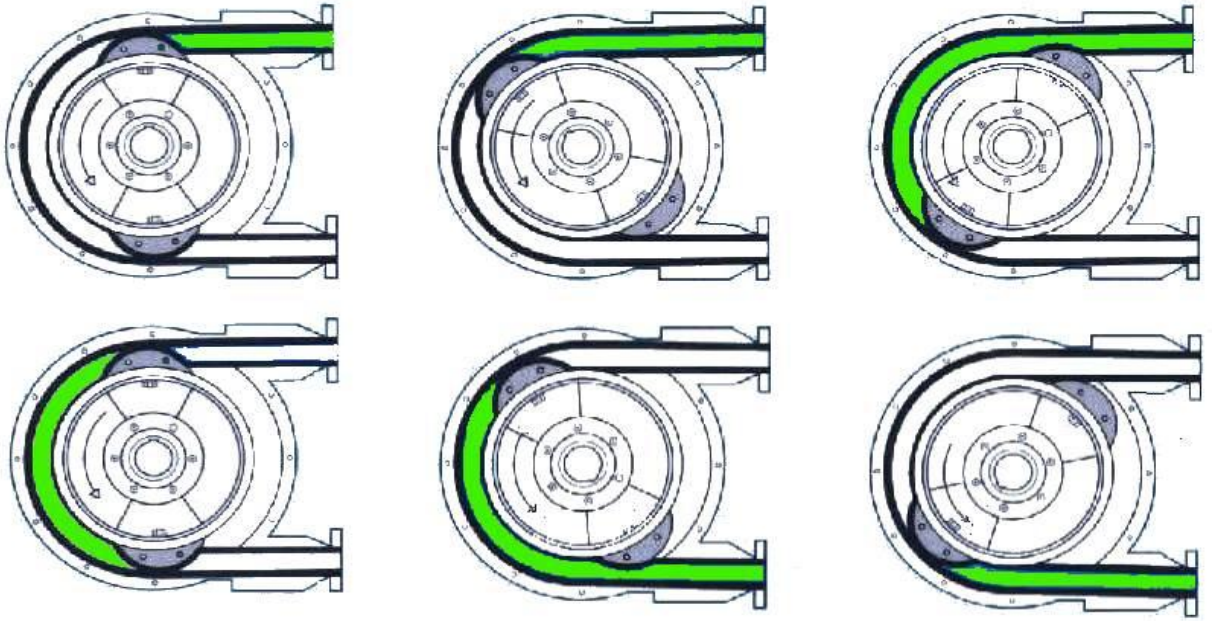
Working principal 1

- A pulsative flow is generated by the pushing action of shoes on the wall of an rubber hose.
- Shoes are assembled on a rotating wheel.
- Sealing under the shoe is performed by the compression of a local area of the hose.
- Frictions between shoes and hose are reduced by using a lubricant which also acts as a coolant.



Working principal 2

- The pumped fluid is only in contact with the inner wall of the hose.
- The pump has no mechanical seal.
- No particle are usually trapped between the walls of the inner hose, when the shoe is squeezing the hose, a small wave in front of the shoe rejecting the particles.



WHAT IS A HOSE PUMP ?
Two types of pumps

albin pump since 1928

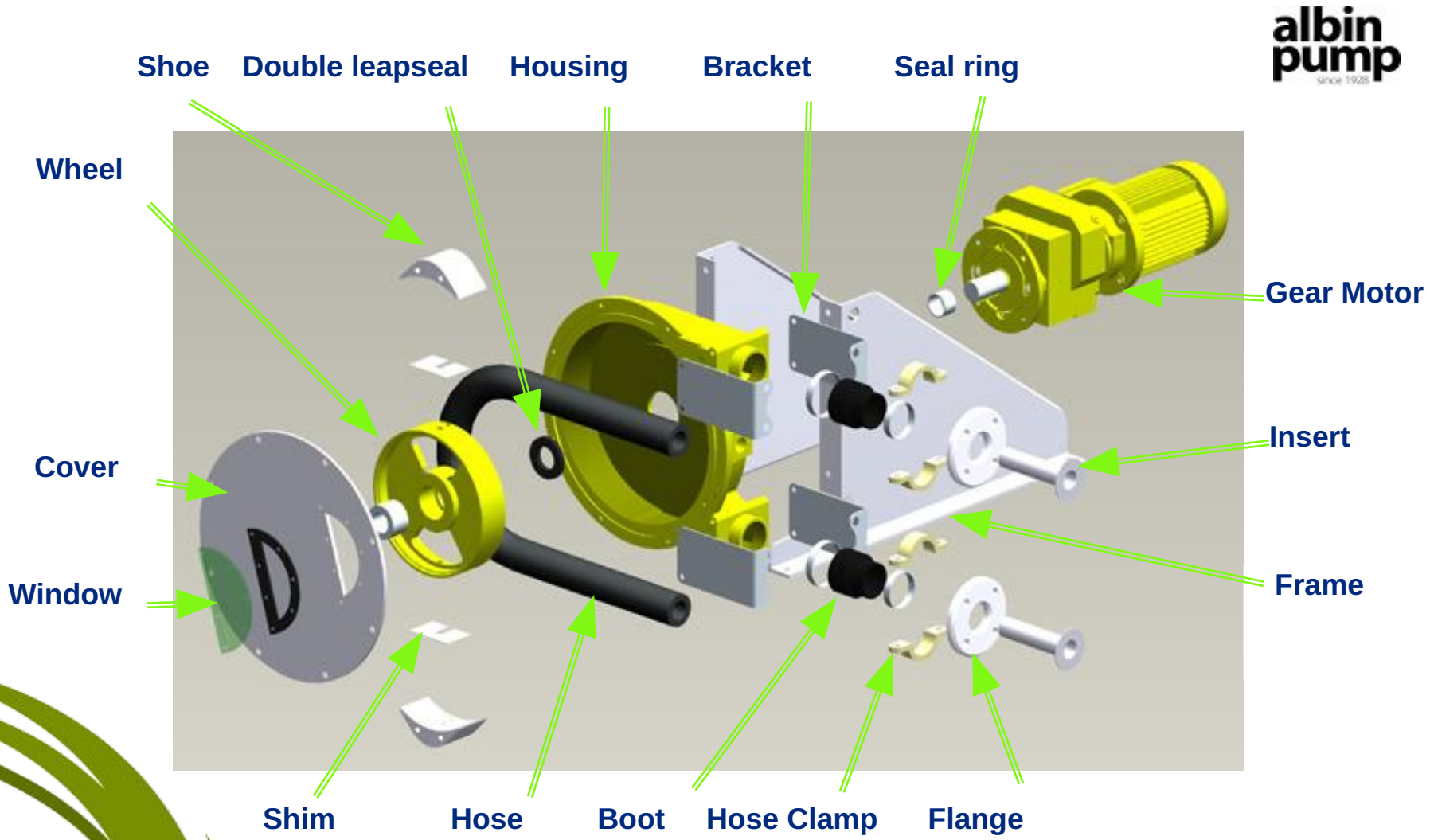
PERISTALTIC PUMPS
Small units generally used in laboratories

- Max. pressure **1.5 bars**
- **Not reinforced hose**
- Manufacturers **90**
- World market **97 million Euro**
- Leader **Watson Marlows**

HOSE PUMPS
Industrial heavy duty pumps

- Max. pressure **40 bars**
- Manufacturers **15**
- World market **56 million Euro**
- Leader **BREDEL**

Typical pump construction



ALBIN hose pump advantages

- Seal less construction
- Self priming pump with high suction lift
  (up to 9m of water @ sea level)
- Continuous dry running is possible if no valve are close
- Appropriate for abrasive products
- Excellent volumetric capacity (dosing)
- Particles (not sharp) up to 15% of hose ID can be pumped
- Simple and inexpensive maintenance
- Reversible pump

Hose pump drawbacks

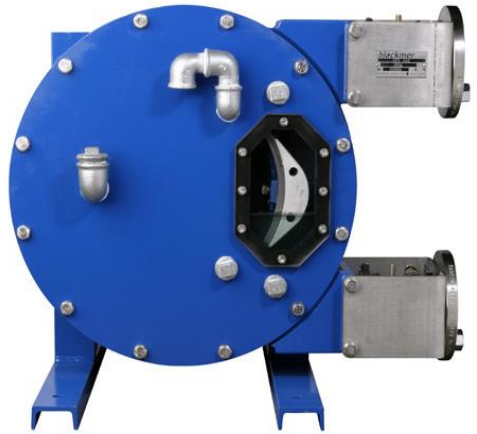
- The pulsative flow
- High acquisition cost
  (higher than PC (3x) or AOD pumps (5x)
- This type of pump is heavy and large
  (2000 kg for an ALH125 (88 m3h))

Main Competitors

albin pump

Main competitors

- BREDEL (SP – SPX)
- VERDER (VF)
- PCM/DELASCO (DL – DSC)
- BLACKMER - (ABAQUE-A)



Other competitors

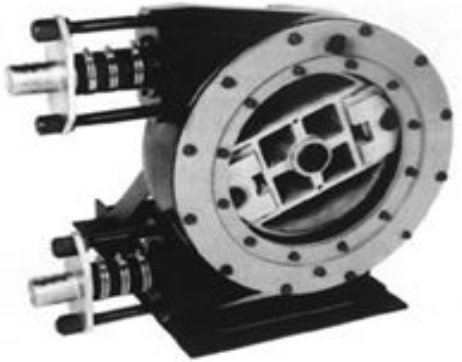
KAWA (3 ranges)

albin pump

BOYSER (3 ranges)

ROTHO RAGAZZINI in the wine industry

VALIZI FINDER



CRANE

ELRO

European hose pump market

European market value 2007 : 25 m Euro (Manufacturer turnovers)

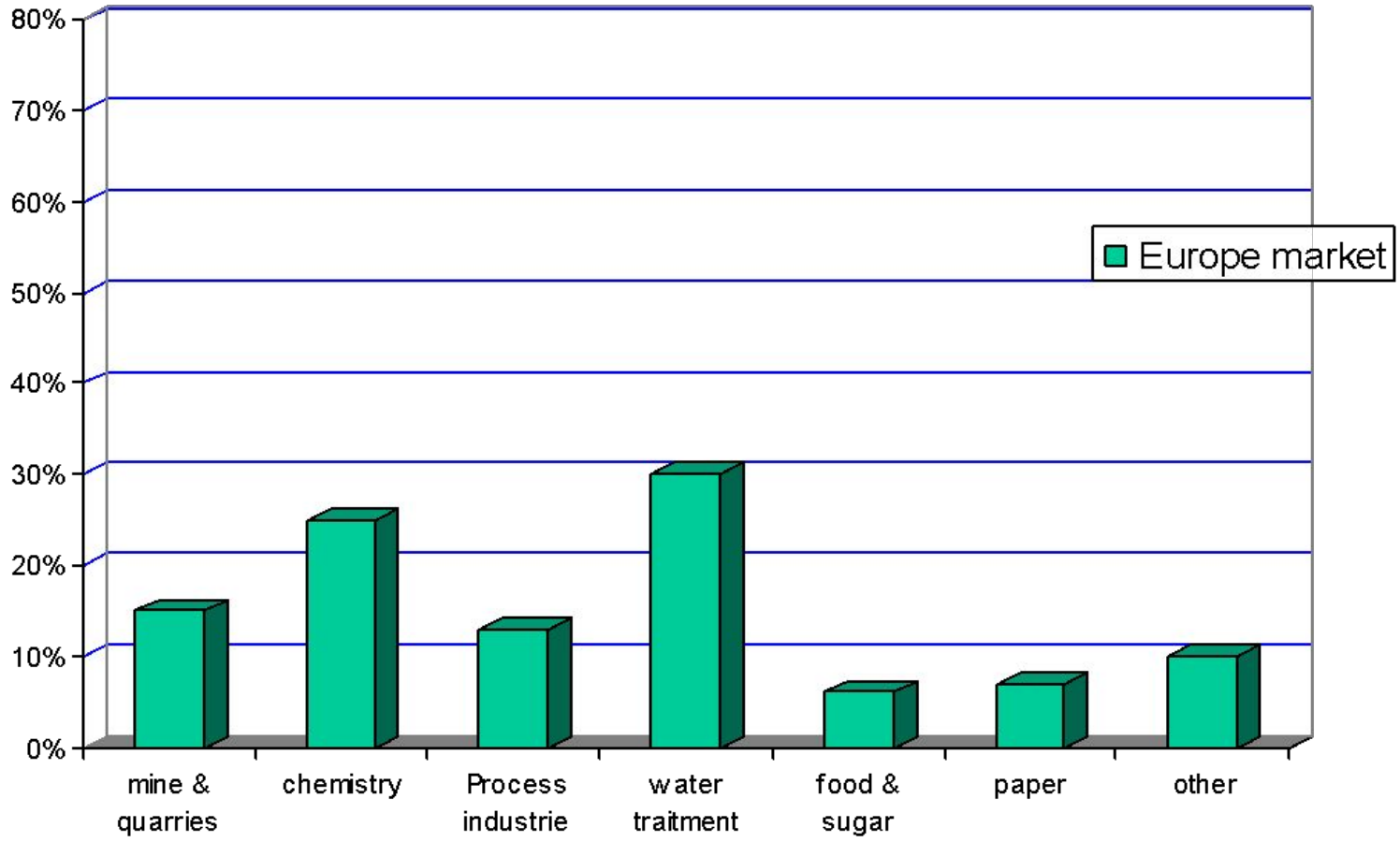
- BREDEL (NL) turnover : 8 M€
- VERDER (UK) turnover : 2.5 M€
- CRANE (D) Elro range turnover : 1.8 M€
- PCM/ DELASCO (F) turnover: High pressure ranges:1.5 M€
- BLACKMER (F) turnover, ABAQUE range.: 1.4 M€
- BOYSER (Sp) turnover: High pressure ranges :1.2 M€
- VALISI (I)turnover: High pressure ranges :1.1 M€
- Other manufacturers under 1 M€: PONDORFF(D) , ENVIROTALEMENT PUMP SYSTEM(UK), ALLWEILLER(D), RAGGAZINI(I), CALPEDA (I), LAROX(S)….and Albin pump soon on top!!!

60% of this turnover is made in spares (95 % hoses)

European hose pump market

The European market is growing by 4% since 5 years.

The main gross is in the process industry: filter press and underflow applications



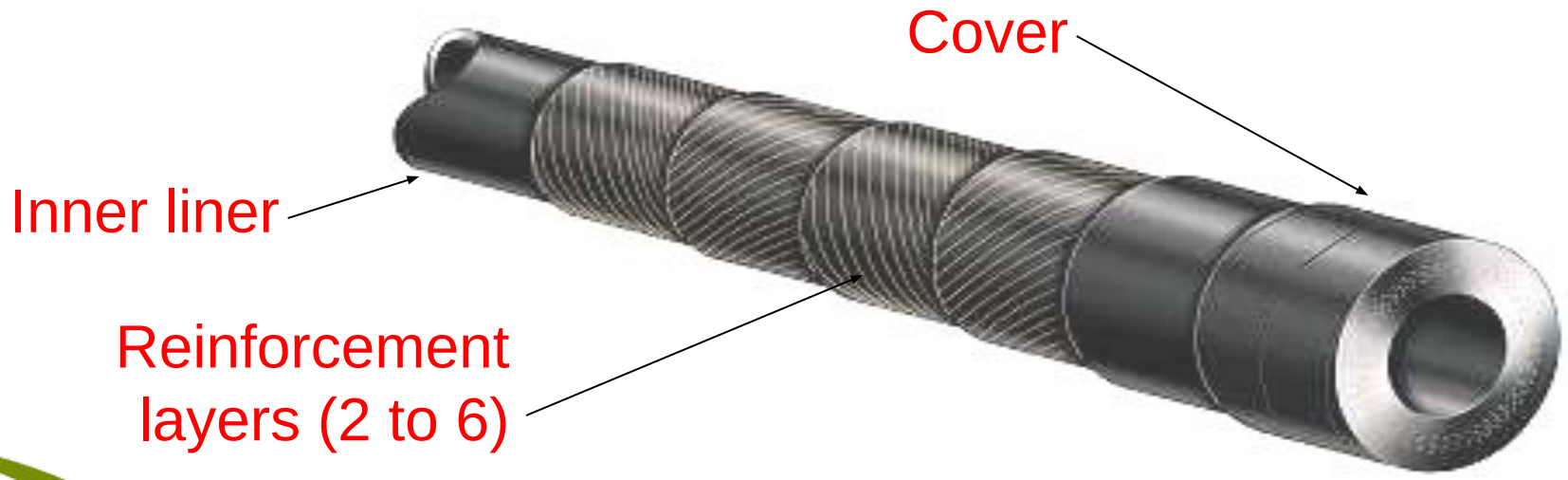
THE HOSE
The critical part

<u>It should withstand</u>:

- high pressures,
- cyclic compression,
- highly abrasive products,
- temperature of the fluid being pumped,
- chemically aggressive products.

The hose conception

- It is made by piling layers of rubber material and weaves of synthetic or metallic fibers.



- 4 to 5 manufacturers worldwide are able of making these hoses following our demanding specifications

The hose material

For the hose liner 3 materials are availab suits the diversity of pumped products

NR (natural rubber)
For abrasive fluids (white marking)
NBR (Buna)
For oily fluids (Yellow marking)
EPDM
For acid & corrosive fluids or high tempe (red marking)

ALBIN decide to increase the abrasive resistance of their hoses, for this reasons we do not machined it.

Second advantage of non-machined hoses: the lubricant has a better grip on the hose, there is less friction between the shoe and the hose inducing a longer life.

Hose material selection

The selection of the right material is made by:

1. Using ALBIN selection tables in Winhy freeware
2. As most of pumped are mixed, by conducting a soak test:

- Weight a piece, soak it in the product for a week…
- If the weight didn't varied more the 5% (more or less), it's the right quality
- If the weight variation is between 5% to 8%, let it one more week to soak.
- If it stabilized, the rubber will be acceptable
- Over 8% this type of rubber is not suitable

Cleaning of the hose

The hose is cleaned in order to avoid:

- Hardening of the fluid on the inner wall of the hose
- Mixing various pumped fluids

It consists in:

- Water cleaning
- Cleaning with an agent
  (compatible with the hose material)
- Cleaning with sponge balls

Hose Life

Hose life test depending of material:

This test has been made by a rubber manufacturer on all hose pump manufacturer, the result was very similar.

On test on water (No chemical attack) (60 Rpm, 10Bar):

NR hose has a life span:

Double than EPDM

Triple than NBR

Hose Life Tips

- 1st Choice (if possible) : NR
  - More Economic
  - More Resistant
- 2nd Choice (if possible): EPDM
- 3rd Choice: NBR

What’s a correct shimming?

Hose Not Enough Compressed

=

Internal Recirculation of Liquid,

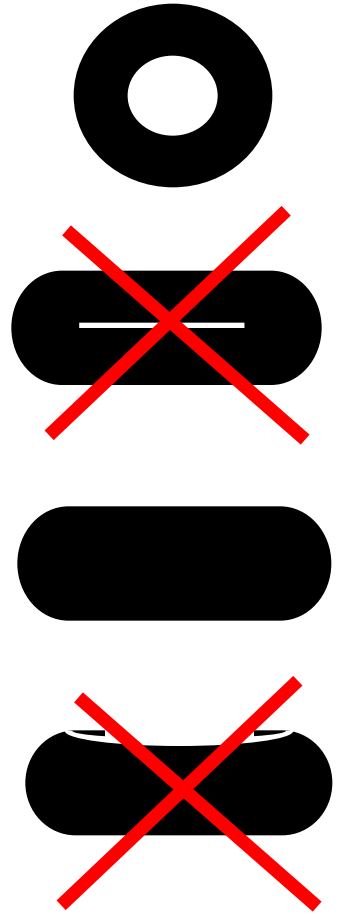
and Hose is Rapidly Cut

Hose Too Much Compressed

=

Unnecessary Brake Power,

and Lower Hose Life



Correct shimming

This optimal distance between the shoes and the casing is obtained by adding shims between the shoes and the wheel.
(ALH25 to ALHS125 pumps)

Pump type ALH65		
Pressure bar (psi)	Speed -Rpm	Number of shims (0,5mm)
ΔP ≤ 5 (72,5)	0 to 30	0
	30 to 90	0
5 (72,5) ≤ ΔP ≤ 7,5 (108,75)	0 to 30	2
	30 to 55	1
7,5 (108,75) ≤ ΔP ≤ 10 (145)	0 to 30	3
	30 to 47,5	2
10 (145) ≤ ΔP ≤ 15 (217,5)	0 to 30	4
	30 to 40	3

Be careful when ordering to precise the outlet pressure, the factory will pre-shims the pumps

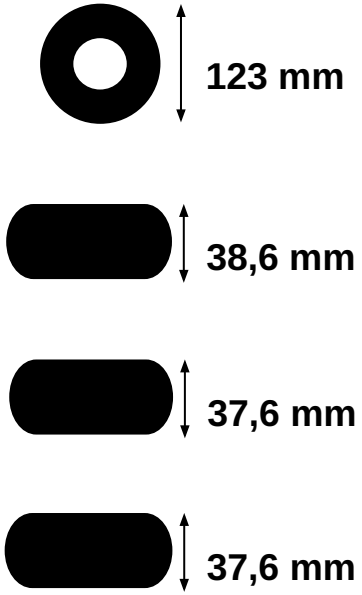
Correct shimming

To compress correctly an ALH80 NR Hose...You'll need to put the following efforts on the shoe:

Equivalant to 5 bar, (without liquid) ==> 2 tons

Equivalant to 15 bar, (without liquid) ==> 4 tons

In real test at 15 bar, on water ==> 8 tons

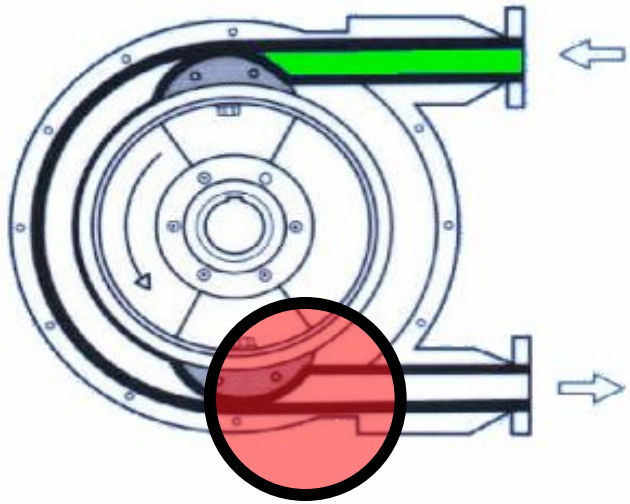


Optimal compression of the hose means optimal distance between shoes and casing

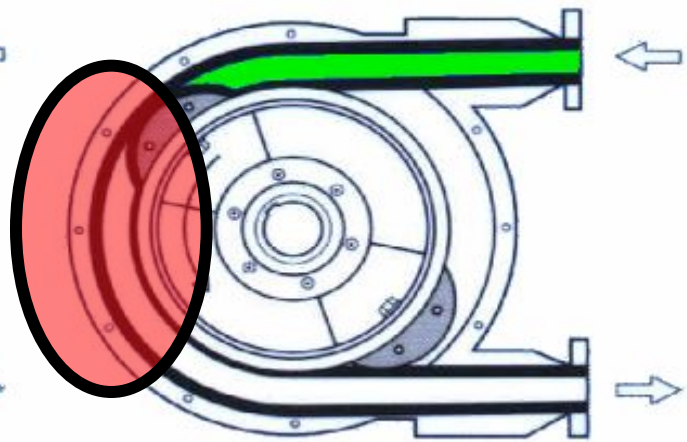
If you use ALBIN hose in BREDEL pump (specially SPX range), you must reduce the number of shims following our chart.

Bredel advice up to 14 shims on the SP range, while ALBIN advice a maximum of 5!!!

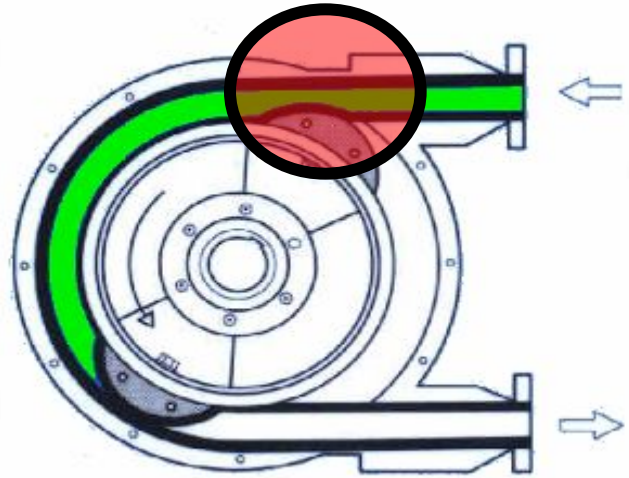
Hose destruction’s areas



Normal end of life
Over shimming



Chemical attack
Under shimming



Over shimming
Or sedimentary product

Pulsation damage

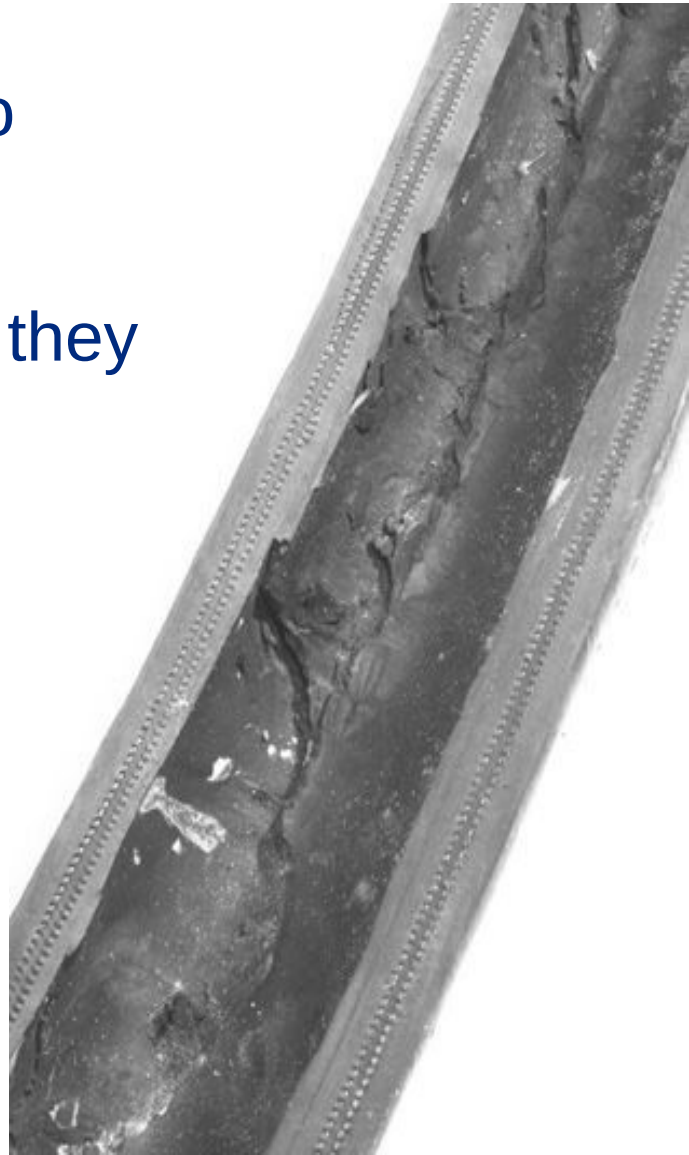
- Damage occurs where the shoe l the hose
- Failure is due to backflow of an abrasive product from severe pul
- Remedy - remove the source of pulsation **not** to increase numbe shims
- Shows as very high discharge sic impulse loss

Suction line problems

- The hose has delaminated over the pressing shoe's path
- The cause is poor suction line conditions, which restrict the p ability to re-fill the hose
- This degrades the hose's fatig performance

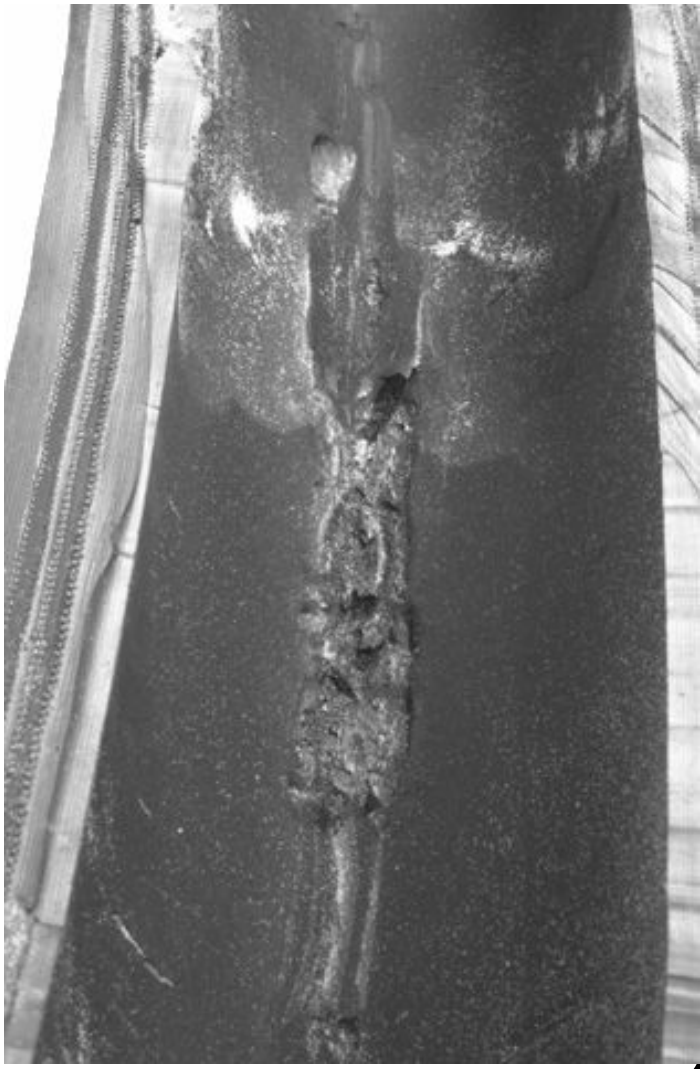
Chemical problems

- The inner rubber has softened due to chemical action
- Parts of the rubber breakaway when they are pulled and may stick together



Over shiming

- This failure occurs in the cheek of the hose as the hose starts to re-vulcanise
- Rubber is built up under the shoe, leading to severe internal friction and a heat build up, resulting in re-vulcanisation
- The failure will occur over the rotor shoe’s full contact path



Hose: max. liquid temperature

Maximum Liquid Temperature

- **NR: 75°C**
- **NBR: 75°C**
- **EPDM: 85°C**

Lower Maximum Pump Speed

If T > 60°C

- **- 30% speed require**

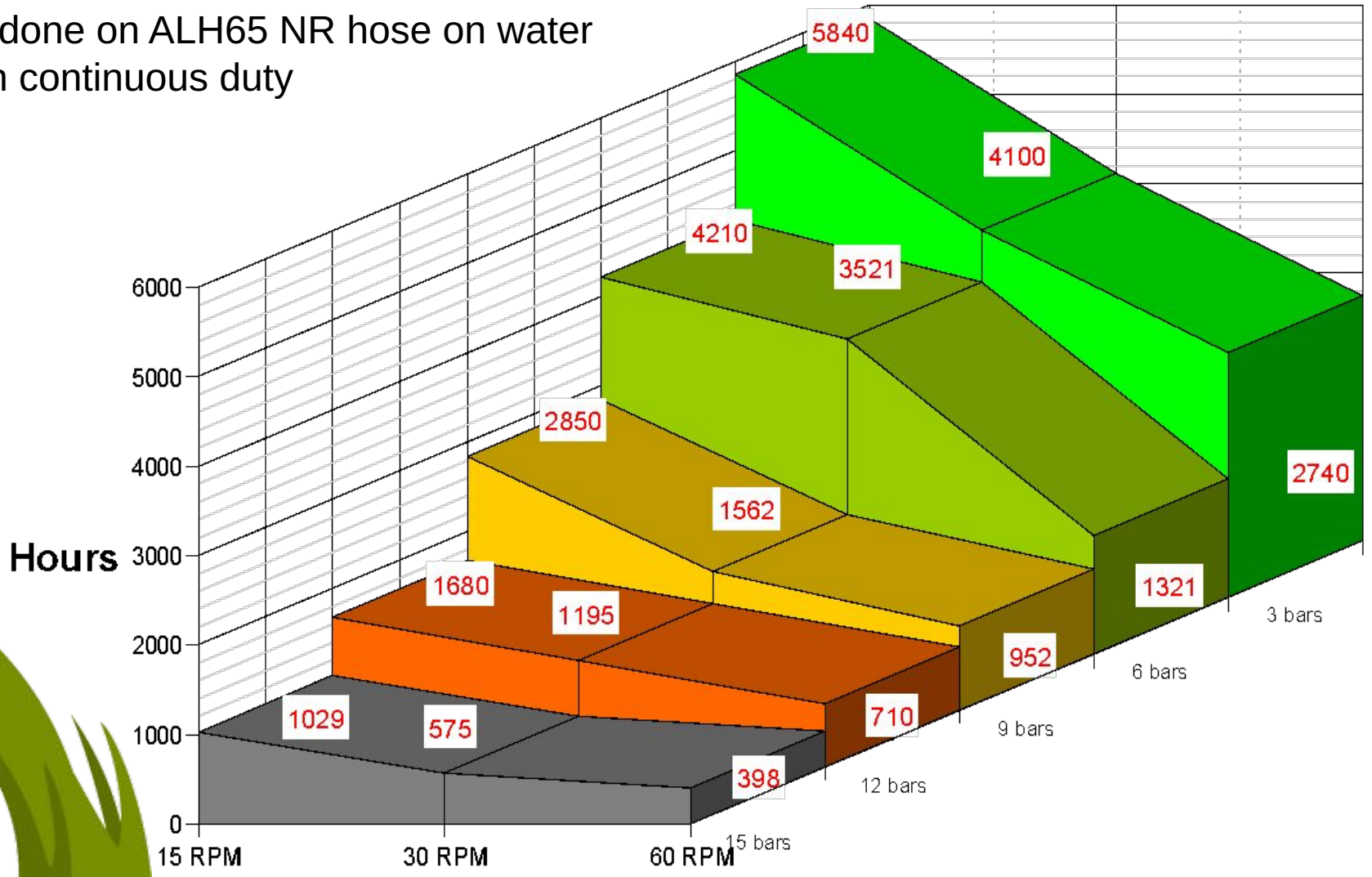
For continuous duties

Over 75°C, the hose life reduce rapidly.
The hose life can drastically increase by reducing the temperature by 5 °C.

ALBIN propose a water cooling jacket which replace the pump cover

Hose life time

Tests was done on ALH65 NR hose on water
@ 20°C on continuous duty



Hose life solutions

Problem 1: Poor Quality Parts

Some people purchase poor quality hose, because it's cheaper. Their experience with time will show that hose fails prematurely and that they spend more money on buying extra lubricant and then have the additional cost and inconvenience of downtime

ALBIN Solutions

Hose

It is essential that you purchase hose and lubricant from a credible source. Our hose has taken many years to perfect and is typically of tri-laminar construction, providing an excellent life expectancy.

Not just experience, but sophisticated manufacturing technology also means that a World-class hose can be created each time, every time.

For the production of our hose we use a fully automated facility that ensures that dimensions are held to the tightest tolerances.

Lubricant

As with hose, our lubricant has been designed to work perfectly with the varying requirements within a hose pump. The range of requirements within a pump, means that the lubricant needs to support not only hose cooling, but also have an inbuilt guard against freezing during winter time.

Our hose pump lubricant fulfils all these requirements

Hose life solutions

Problem 2: Pump Speed

Hose for peristaltic pumps has a finite and often predictable life if all factors are consistent within a process and it will provide a number of compressions and returns in its operation before failure.

Pump speed has a direct effect on hose life, to the point where we could say as a guide, if you double your pump speed you will half your hose life. Conversely if you half your pump speed you will approximately double your hose life.

This simple guide has helped hundreds of pump installations to improve their hose life dramatically.

ALBIN Solution

As you can see the pump speed has a dramatic impact on the life of a hose for peristaltic pump. This being the case it is essential that when you are considering purchase you contact us to discuss your application in detail to ensure the correct pump is selected from the start.

More often than not it is wiser to purchase a larger pump and run it slower, than to squeeze the duty onto a smaller pump running fast and then suffer the cost of more frequent hose replacement.

If you have already purchased a pump and do not want to upgrade to a bigger pump, please give us a call and we will talk through your application and make recommendations.

Hose life solutions

Problem 3: Incorrect Hose Materials

If your pump hose is failing regularly, it would be appropriate for us to check the compatibility of the hose material with what you are pumping through it.

ALBIN Solution

Our peristaltic pump hose comes in a wide range of materials.

When we select a hose for peristaltic pumping, we consider many factors including the liquid that you are pumping, temperature involved and general duty expectations.

In order to extend your current hose life, we would review the duty application and ensure that the optimum material was employed.

Often we have found for example that natural rubber hose or natural rubber tubing has been selected for an application because of its excellent physical properties, only then to have the application changed to a more acidic product causing the rubber to rot away prematurely.

If you have a pump running whose hose life has reduced with time and is no longer acceptable, let us come and take a look for you

Hose life solutions

Problem 4: Suction Lift

If your application has a suction lift, many forces are placed on the pump hose that can lead to premature failure.

ALBIN Solution

A major improvement can be seen in hose life, through the introduction of a correctly sized dampening device.

Give us a call and we would be happy to advise.

Problem 5: High Pressure Discharge

For similar reasons to point 4, large pressure on the discharge can create considerable strain on the hose.

ALBIN Solution

We are one of the few companies who provide special long life hose for these types of application. In addition, we can provide a discharge pulsation dampener to reduce pressure shock to the hose and once again increase hose life

Problem 6: High Temperature Application

If you are pumping at a high temperature this can lead to early hose failure

ALBIN Solution

We would be happy to review your installation to consider ways that temperature can be reduced.

TYPICAL APPLICATIONS

- **CERAMIC** (ceramic slips, mould filling, press filters)
- **MINING & QUARRIES** (sludge up to 60000 Cps, clay slurry up to 800g/l, lead sulfate, pyrite slurry. SABX, thickener underflow, flocculants & reagent feed, cyanide metering, activated Carbon, Acid Slurry
- **WATER TREATMENT** (lime liquor, flocculate dispersion, sludge and slurries)
- **BUILDING INDUSTRY** (liquid or fibrous mortar, liquid plaster, light concrete)
- **CHEMICAL INDUSTRY** (Glue, acid, alcohol, detergent pumping, etc…)
- **NUCLEAR** (contaminated slurries and mud, ammonium dioxide, uranyle nitrate)
- **FOOD INDUSTRY** (tomato sauce, mashed potatoes, gelatin, beer slurries, fish past, olive oil, slaughter house, liquid salt, seed fertilizer)
- **PAINT** (water base and acrylic paint, pigments, wall coating)
- **FILTER PRESS** (filling and pressing up to 15 bar)
- **PAPER INDUSTRY** (latex, slurries, kaolin)
- **BIO FUEL:** pumping the waste to produce bio-fuel

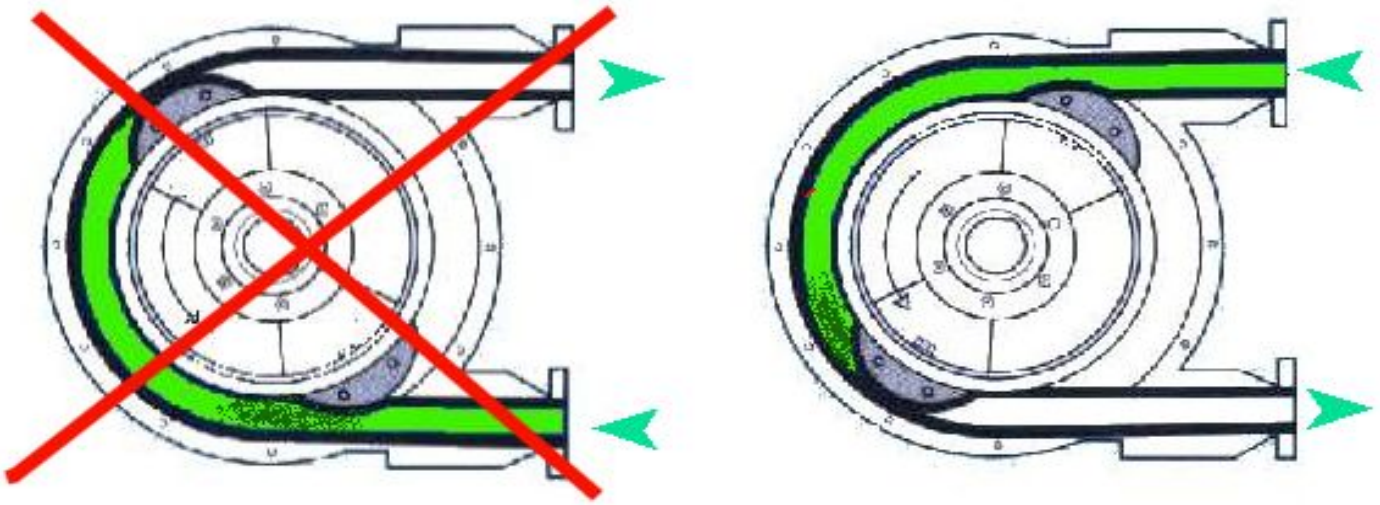
etc...

ALBIN Customers

- Akzo Nobel
- Allia
- CEA
- Cogema
- Degremont
- Diemme
- Dipro
- Ducros
- Faure
- Francolor pigment
- Générale des eaux
- Kaolin d’arvor
- Kemira
- Metal europe
- SIGMA KALON
- OTV
- Papeterie du Cascadec
- Villeroy & Boch
- RHODIA
- SGN
- Sika
- XELLA thermopierre
- Sogea
- Solvay
- Sotres
- MS
- Spi Batignole
- Unilever
- Mac Caine

Sedimentary product

When you are pumping sedimentary products, you must always fill the pump by the top. This way, the shoe is not obstructed by the sedimentary heap and does not track the hose.



Be careful this tip could be destroy a hose market, as BREDEL &VERDER advice to pump by the bottom

Sedimentary product

- Liquids as lime cream can deposit on the internal diameter of the pipe increasing the friction loss, it should be install a back wash.

- Avoid bends and curves just after the pump outlet which can form a plug, creating large overpressure whose are detrimental for the hose life.

Shoe against roller design

On many hose pumps, rollers are used to compress the hose.

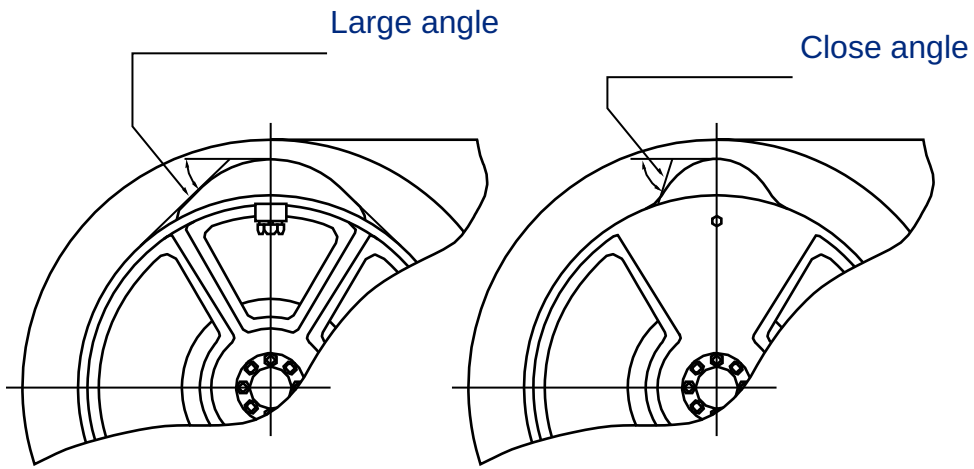
This design has proven successful in the lower pressure applications, since lubrication is not really necessary between hose and roller and the radial force are very low allowing the rotation.

In the higher pressure area, from approx 3 bar, the rollers do not rotate anymore and the angle at the point of compression becomes fairly steep which acts negatively on the hose.

In this case the shoe design has proven more effective, since they act more gently on the hose.

To protect the hose, the shoes operate in a bath of lubricant. Depending on the application, different oil types or glycerin based can be used.

The ALBIN hose pump is designed for higher pressure applications and is therefore supplied with shoes as standard.



Positions of the pump

- The pump can work in any position (by 90°)

ALH10 only

Other sizes

Don’t forget to specify the definite position at the order

Other technical solutions

PC pump (MONO)

- expensive maintenance when dry running or for abrasive product
- low flow accuracy
- only small particles

Piston membrane pump (ABEL)

- expensive & difficult maintenance
- expensive to buy
- heavy air consummation

AOD pump (VERDER)

- low efficiency
- heavy air consummation
- expensive & difficult maintenance
- don’t handle viscous liquid

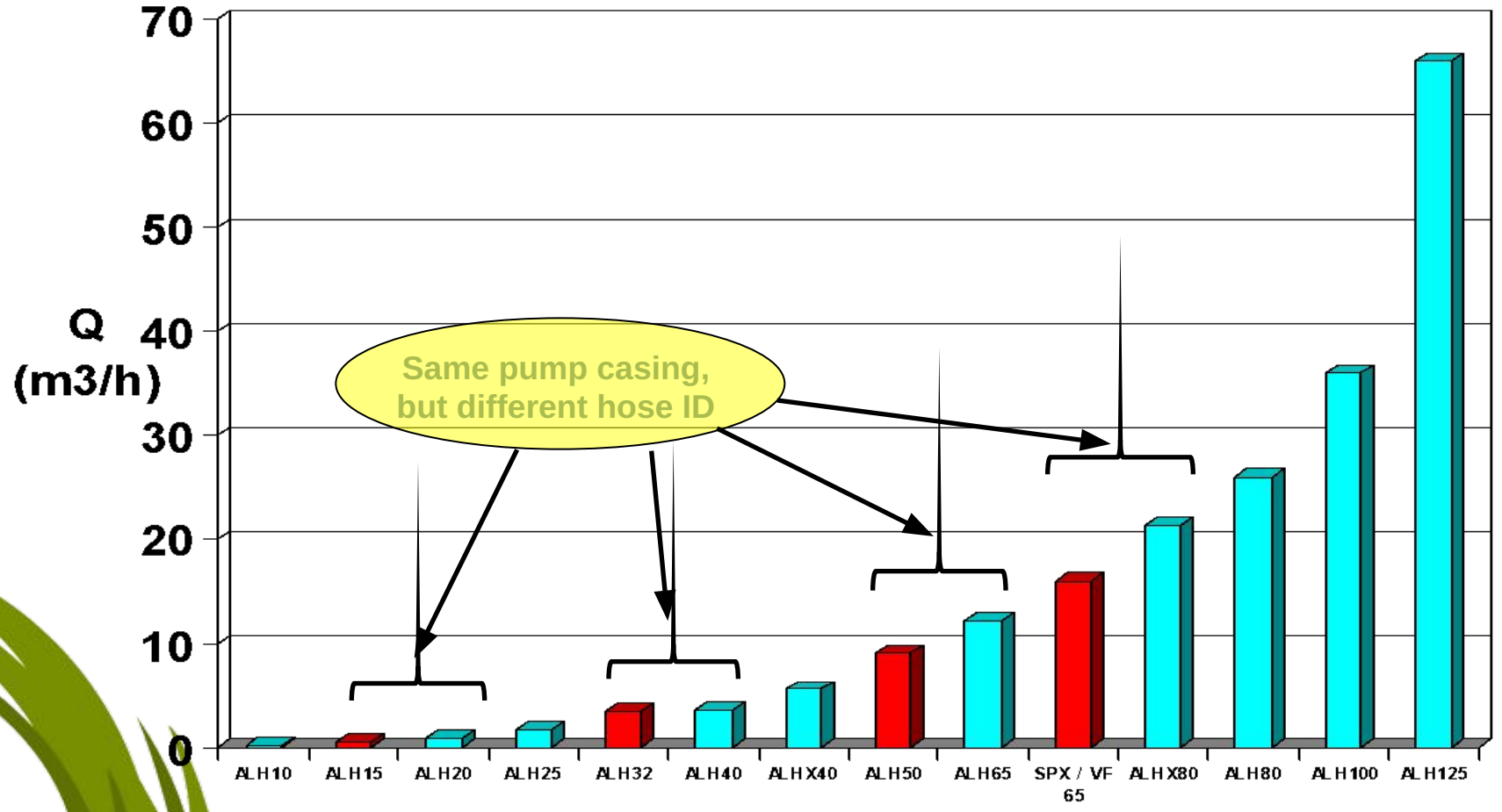
Range Comparison

ALBIN serie is the largest & most comprehensive range of heavy duty hose pump.

ALBIN	ALH 10	ALH 15	ALH 20	ALH 25	ALH 32	ALH40	ALHX40	ALH50	ALH65		ALHX80	ALH 80	ALH 100	ALH 125
Blackmer	A 10		A 20	A 25		A 40	AX 40		A 65		AX 80	A 80	A 100	A 125
BREDEL	SPX10	SPX15	SPX20	SPX25	SPX32		SPX40	SPX50		SPX65		SPX80	SPX100	
VERDER	VF10	VF15	VF20	VF25	VF32		VF40	VF50		VF65		VF80	VF100	VF125

ALBIN, a complete hose pump range

ΔP max: 15 bar
Visco max: 100 000 cps



ALBIN, a complete hose pump range

As we have the same casing size for the SP/VF 15, 32 and 50.

- You can transform at low cost Bredel SP range and Verder sizes in ALBIN size.
- Advantage for the customer:

1. better hose life as the speed is reduce by 30%
2. 30% more flow at the same speed

- Advantage for us: the competition cannot sale their hose

Inserts material

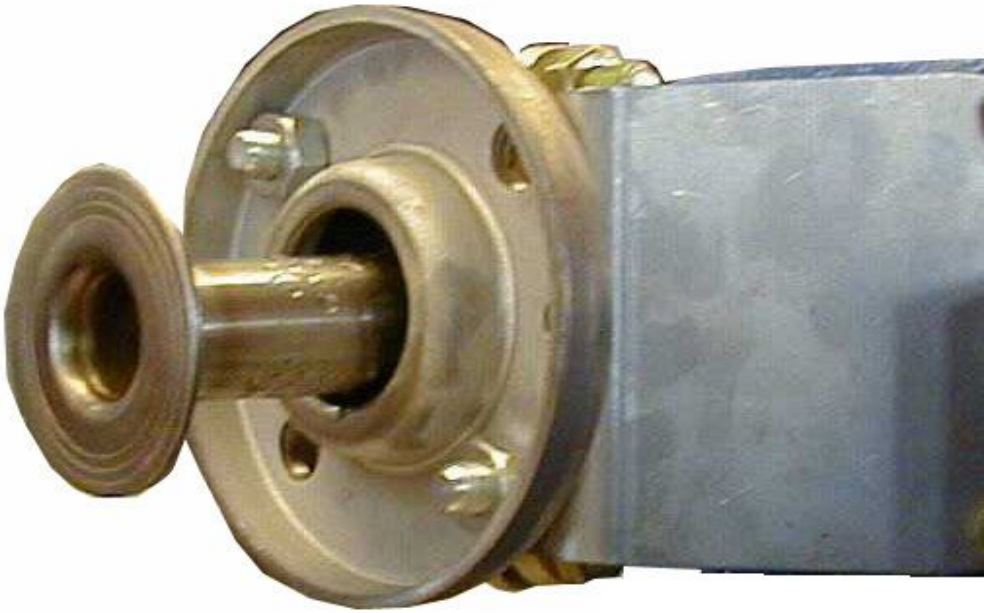
In standard:

- **Stainless steel 316L**

Other materials in stock:

- **PP**
- **PVDF**

Special material on demand



Vacuum systems

The flow rate is reduced when:

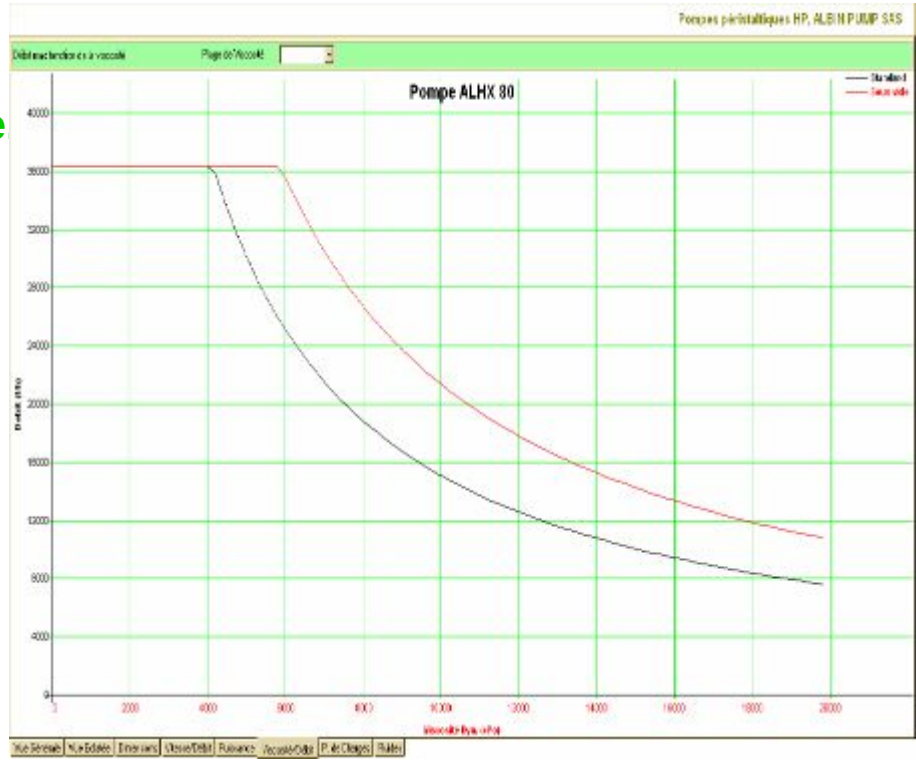
- Pumping viscous products (over 10000 Cps)
- Having a high suction lift

Because the pump hose does not have time to re-expand to initial position, prior new shoe passage

The solution is to reduce pressure outside the hose

By putting the pump casing under vacuum

You can verify your expected flow with our freeware:
Blue curve, standard expected flow
Red curve, expected flow with vacuum system



VISCOSITY TABLE

Usually the end customer don’t know the viscosity of his product, with this table you will be able to describe the viscosity.

PUMPED PRODUCT	DYNAMIC VISCOSITY IN CP
COOKING OIL	850
GLYCERIN	2 000
MOTOR OIL 10-40	3 000
KETCHUP	4 500
FRENCH MUSTARD	7 000
APPLE MOUSSE	9 000
FRENCH MAYONNAISE	15 000
TOOTH PASTA	30 000
BLACK MECHANICAL GREASE	70 000
SILICON GREASE	100 000

Vacuum Systems

Option 1: the pump does his vacuum itself

Air suction flange kit fitted on the inlet of the pump

- Casing depressurization equals inlet pressure
- Air is mixed with fluid
- Not to be used if rotation in both directions, or if inlet is in charge

Option 2: Venturi ejector

Air ejector kit for pump turning in both directions

- Venturi ejector
- up to 90 % vacuum
- 5 to 6 bars air pressure
- 67 Nl/mn (4Nm^3/h) air consumption

Dosing application

Because the ALBIN hose pump don’t have any internal leak,
ALBIN hose pump has a perfect accuracy.

This accuracy don’t reduce over time due to abrasion. As it’s the case with PC pumps.

This perfect volumetricity allowed to measured accurately the flow by counting the wheel’s rotation.

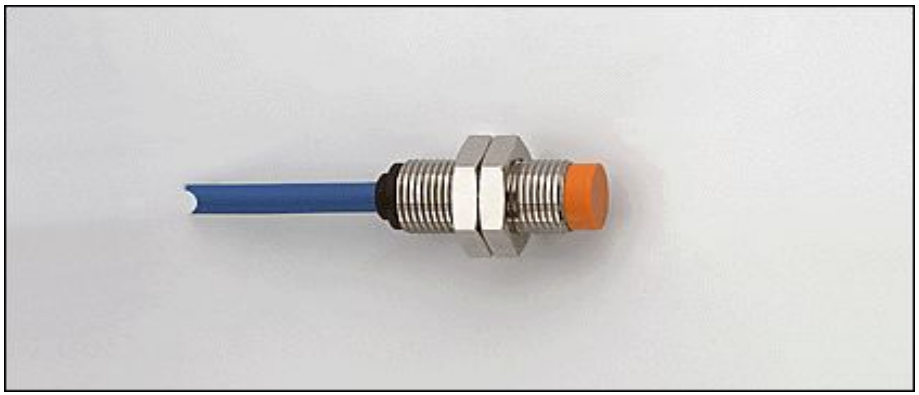
You may use a inductive captor insert in the window to be able to detect when the shoe go past. That’s will replace expensive meters .

NF5008

IFA2004-N/6m/1D/2G
Metal thread M12 x 1
Cable

ATEX approval
Group II, category 1D
Group II, category 2G

Sensing range 4mm [nf]
non-flush mountable



Food application

THE HOSE PUMP PRINCIPLE IS NOT FOOD GRADE

- Test made by a shampoo manufacturer (Palmolive) prove that 6% of the hose weight goes in the product during the hose life (in small particles). Long before the hose bursting, larger particle (> 1mm). As every hose pump users know, the lubricant turn black after a few hours…
- Before the hose burst, small cracks appears from the in[illegible] reinforced lays, the pumped product may migrate between the lays [illegible]ected nor being clean by C.I.P.
- Inserts cannot be hygienic as they are not [illegible]
- When the hose breaks…What happe[illegible]

Do you need a pulsation dampner?

Do you have?:

- LINES VIBRATING & HAMMERING
- PUMPING PROCESS SHOWS SEVERE PULSATION
- CAPACITY DECREASE DUE TO IMPULSE LOSSES
- PRESSURE IN PUMPHOUSING BELOW INLET PRESSURE WHEN ABLBIN VACUUM ASSIST IS INSTALLED When the shoe leaves contact with the hose, its volume in the hose is filled with the fluid of the discharge line creating the pulsation

Pulsation dampner

Inline pulsation dampner

- Absorption is made by the deformation of hose controlled by compressed air
- Best result when the pick of maximum pulsation is +- 3 bar
- With 75% of outlet pressure input, pulsations absorption can be as much as 90%.

Pulsation dampner

Guideline capacity dampner

Volume Air Dome = V1 x Pd

	V1 [l/bar]
ALH10	0.05
ALH15	0.2
ALH15	0.3
ALH25	0.8
ALH32	1.4
ALH40	1.5
ALHX40	2.5
ALH50	5
ALH65	7,5
ALHX80	10
ALH80	16
ALH100	33
ALH125	66

For the small pump, you may use a piece of closed pipe, (at least the ID than the hose) placed on a T connexion at the outlet of the pump. This pipe length will be a 2/3 of the pump hose size.

Example: on ALH25: 75 cm

V1 volume [l/bar]

Pd Discharge pressure [bar]

Example: ALH50 with pick of pulsation at 5 bars:

5 (l/bar) x 5 Bars = 25 liter tank

ALBIN vs. BREDEL

Larger pump range:
Better ratio speed/price or hose life/price.
Most ALBIN pump parts are compatible with the SP range

Shoe replacement by the window
Not possible on SP

Standard inserts in stainless steel 316 L
On SP range in mild steel
and Bolts, nuts, brackets and flange in stainless steel 314:
Better corrosion resistance
Bredel in mild steel

Easy dismantling of the wheel: Vécobloc vs. tight coupling (SP) Less time needed for operation.
SP range :Tight coupling
SPX range Bearings inside the pumped liquid

Casing and wheel in ductile iron, Better resistance against shocks and low temperature.
SPX range in GL cast iron, lot of wheel breaking

Pump without bearing:
Double lips seal and leak at thee back of the pump protecting the gear box bearing.
SP range: difficult maintenance to change the bearing
SPX range: bearing inside the wheel in close proximity with the pumped product

ALBIN vs. CRANE Elro

- The Crane Elro has been design for fire-brigade (M300 serie), to pump high volume in a short time. It's a very successful design for this application.
- We designed our pump for high pressure industrial application.
- Their hose life is very short over 3 bars due to their vacuum system. Because their hose wall is quite thin, they have to pump the pump casing under vacuum. To produce the vacuum, their hose has a small bore in line with the main bore, this make it a very fragile hose.
- Lot more parts than our ALH
- Bearing inside the pump in contact with the pumped product when the hose break
- Weak aluminum construction
- Fragile hose fitting due to the piercing in the aluminum casing

ALBIN vs. VERDER

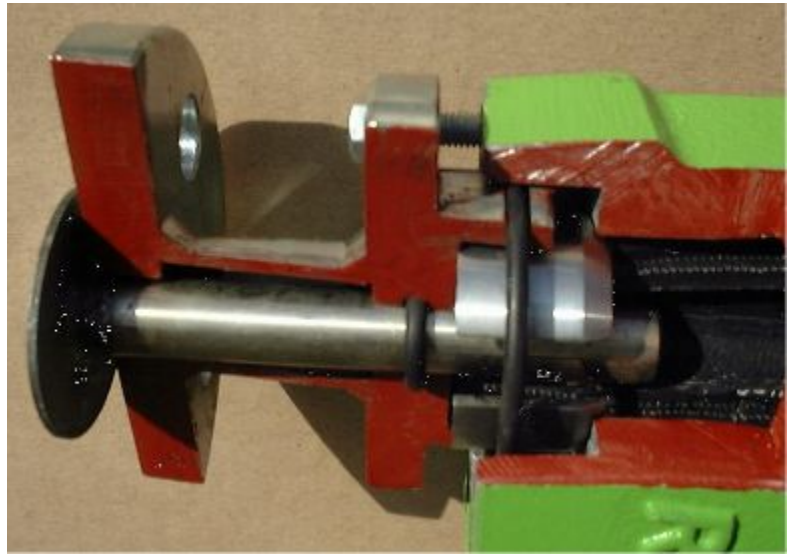
Hoses Connexion

If VERDERFLEX hose connexions system looks easy and friendly users, by experience this system is a nightmare. When you must replace a hose, the metallic ring should be heated or mechanically deformed in order to be able to fit correctly a new hose in the pump.

The depth of the threaded holes (which are often too short or wrongly machined) to fit the flanges on the pump casing

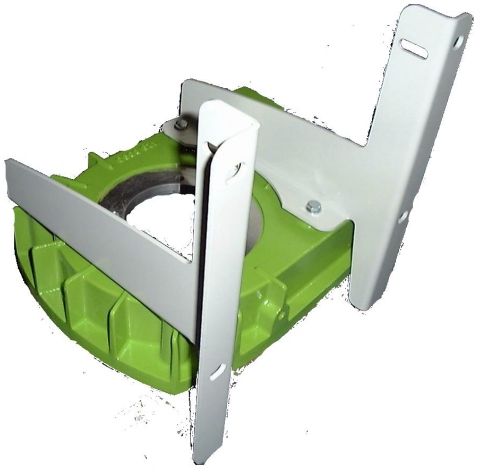
Its light thickness of the material (cast iron) around the threaded holes (which generates often cracks in the pumps casing)

After two or three hose replacement, you will be forced to replace metallic clamp rings.



ALBIN vs. VERDER

Gearbox Connexion



Probably the weakest point because no sealing to protect the gear box.

(ALBIN hoses pumps have an ‘extra’ sealing (Merkel O-Ring).

First, by standard wearing of the lip seal (mainly due to the hose burst), the glycerine goes in the casing of the gearbox through this ‘special’ lip sea The mix of glycerine and gearbox oil creates a kind of ‘bitumen’ which not damage the gearbox but destroy it. If the pumps is supplied with a coaxial gearbox slightly undersized (which is very often the case on the pumps range VF10 to VF50), you imagine easily the consequences in terms of maintenance and repair costs.

ALBIN hose pumps have also in the pump casing ‘dripstone or drain hole’ which is useful first to protect the gearbox and finally to check physicall if the Merkel O-Ring is leaking or worn. In any circumstances, the gearbox is protected against the presence of pumped liquid in the pump casing

Moreover, in case of overpressure, the specific double lip seal can support max 2,5 bar and as there is no other way than the vent hole of the gearbox the air with lubricant goes in the casing of the gearbox. The sealing is not more efficient and the presence of glycerine in the oil of the gearbox will cause the breaking of the gearbox

The last point concerning the connexion of the gearbox on the pump casing is the installation itself. Indeed, when ALBIN hose pumps are supplied with 4 studs to fit the gearbox on the pump casing, the VERDERFLEX pumps casing have four holes in which 4 bolts and nuts are used to fix the gearbox on the pump casing. This construction is absolutely not leak free (the oscillating movement of the gear-motor increases this leakage effect) and to avoids glycerine leakage a thick layer of sealing pasta is used.

Pump selection - required information

- Fluid handled
- Flow rate
- Suction and discharge pressures
- Duty cycle (continuous or intermittent)
- Viscosity (shear thinning or thickening)
- % of solids and particle size
- Temperature
- PH level

We will provide you

A major saving with

Better hose life

Shorter & easier maintenance

Better service

And better pricing

albin pump
since 1928

Thanks and Good Sales